

a1
cont.

directions of the arrangement of the semiconductor chips. This allows the gap between each two of the semiconductor chips to increase, as shown in Fig. 5. In Fig. 5, the bump electrodes 19b and the film electrodes 19a shown in Fig. 4 are denoted by symbols 15b and 15a, respectively.

Please rewrite the paragraph on page 6, lines 3-4, as follows:

a2

Figs. 2A and 2B are sectional views of a chip-type semiconductor device according to an embodiment of the present invention.

Please rewrite the paragraphs beginning on page 6, line 18, and ending on page 7, line 20, as follows:

a3

Referring to Figs. 2A and 2B, a chip-type semiconductor device according to an embodiment of the present invention includes: a semiconductor chip 15 having a plurality of film electrodes 15a on the rear surface of the semiconductor chip 15 and a plurality of bump front electrodes 15b protruding from the front surface of the semiconductor chip 15; an insulator resin film 16 formed on entire surfaces of the semiconductor chip 15 while exposing the film electrodes 15a and the top surfaces of the bump front electrodes 15b; and a conductive resin film 17 formed on the front side of the semiconductor chip 15, or on the top surfaces of the bump front electrodes 15b. The conductive resin film 17 is configured as a plurality of interconnect lines connected to the bump front electrodes 15b.

The semiconductor device shown in Fig. 2A is mounted on a printed circuit board 23a, with the rear electrodes 15a being mounted on respective terminals of the printed circuit board for electrical connection. The conductive film 17 constituting interconnect lines is also connected to the terminals of the printed circuit board 23a by

63
amended

bonding wires 24. In an alternative, the semiconductor device can be sandwiched between a pair of printed circuit boards 23a, 23b, with the rear electrodes 15a being mounted on terminals of one of the printed circuit boards and the conductive film 17 being connected to terminals of the other of the printed circuit boards, (see Fig. 2B).

The semiconductor device of Figs. 2A and 2B is fabricated by the process as detailed below with reference to Figs. 3 to 7.

IN THE DRAWINGS

Subject to the approval of the Examiner, please find attached a copy of the original drawing sheet on which Fig. 2 appeared with proposed amendments indicated in red, and a separate drawing sheet showing new Fig. 2B to be added to the drawings.

REMARKS

The specification has been rewritten and the drawings have been proposed to be amended to overcome the examiner's objection to the drawings.

Claims 1 and 5 were rejected under 35 U.S.C. § 102(b) as being anticipated by Thin Film Microelectrode Arrays for Electrochemical Biosensors by Novotny, et al. (1999). Claim 2 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Novotny, et al., in view of Applicant's prior art. Claim 3 was rejected under 35 U.S.C. § 103 (a) as being unpatentable over Novotny, et al. Claim 4 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Novotny, et al. in view of Derouiche (U.S. Patent No. 5,754,405.)